

S  
333.7  
N79  
1979

# GUIDELINES

FOR PREPARING GRANT PROPOSALS TO THE  
ALTERNATIVE RENEWABLE ENERGY SOURCES PROGRAM

STATE DOCUMENTS COLLECTION

MAY 1980  
CITY OF HOLLENA, MICHIGAN  
39901

APR 2 '80

Montana State Library



3 0864 1004 5781 4

DEPARTMENT OF NATURAL RESOURCES  
AND CONSERVATION  
ENERGY DIVISION



THOMAS L. JUDGE GOVERNOR

STATE OF MONTANA

(406) 449-3940

NATURAL RESOURCES BUILDING

32 SOUTH EWING  
HELENA MONTANA 59601

**PROSPECTIVE GRANT APPLICANTS:**

The following guidelines are designed to aid an applicant in preparing an application for a funding grant under the Alternative Renewable Energy Sources Program. Because the program is highly competitive, adherence to the recommended guidelines will greatly assist reviewers in evaluating the merits of the proposals and speed the awarding of grants to successful applicants.

Persons submitting unsolicited proposals and those responding to Requests for Proposals should follow these guidelines as closely as possible and address all areas where applicable. If any questions arise concerning the guidelines, please do not hesitate to contact the Department for clarification.



# TABLE OF CONTENTS

<b>Purpose</b> .....	1
<b>Eligibility Requirements</b> .....	2
<b>Submission of Proposals</b> .....	3
Unsolicited Proposals.....	3
Solicited Proposals.....	3
<b>The Proposal Document</b> .....	5
General Information.....	5
Format .....	5
Content .....	6
<b>Proposal Evaluation</b> .....	11
<b>Successful Applicant's Responsibilities</b> .....	12
Quarterly and Final Reports.....	12
Public Information and Access.....	12
Patent Rights.....	13
<b>Appendix A</b>	
Sample Title Page.....	15
<b>Appendix B</b>	
Example Project Schematic.....	16
<b>Appendix C</b>	
Example Budget.....	17
<b>Appendix D</b>	
Statutes .....	18



# **MONTANA ALTERNATIVE RENEWABLE ENERGY SOURCES PROGRAM GUIDELINES FOR PREPARATION OF PROPOSALS**

## **PURPOSE**

The Alternative Renewable Energy Sources Program was authorized by the Montana Legislature in 1975 through Senate Bill 86 (90-4-101 through 90-4-107, MCA, formerly Sections 84-7407 through 84-7412, R.C.M. 1947). The purpose of the act is to assist the state with lessening reliance on conventional energy sources and enhance ecological stability by stimulating research, development and demonstration of renewable energy sources. The act also provides funding for such work. The program is administered by the Energy Division of the Department of Natural Resources and Conservation and grants are awarded for projects which research, develop or demonstrate such renewable energy sources as solar, wind, geothermal, water and biomass. Yearly funding for the program is derived from 2.5 percent of the state coal severance tax through 1979; thereafter, the amount available will be 5 percent. The Department will grant funding for projects conducted in Montana and applicable to this state's energy needs; grants are given for a period of one year. All information relating to the projects is made available to the public.

## **ELIGIBILITY REQUIREMENTS**

The Department will grant funding for projects conducted in Montana and applicable to this state's energy needs. There is no minimum or maximum allowable request, but in general, applications for more than \$100,000 are not encouraged. It is the intention of the Department to direct funding toward individual inventiveness and small-scale, decentralized energy production units. These units may operate independent of, or in conjunction with, existing energy production and delivery systems. The Department may give preference to: (1) centers where several investigators can share supporting services; (2) those who will make information available to individuals, small businesses, and small communities seeking the use of renewable energy sources; and (3) for those projects which are also supported by grants from the federal government or other persons, provided the grants are consistent with the other objectives of the Department. Applications for large scale, capital intensive projects may be funded, but are generally discouraged.

Among the items considered inappropriate for funding are: completed projects; heating of private swimming pools; excessive users of energy and basic energy conservation measures such as insulation and weather stripping. In all cases, the project must focus on renewable energy development and use.

# **SUBMISSION OF PROPOSALS**

All proposals submitted to the Department become government documents subject to public scrutiny; applicants waive any claim of confidentiality by filing.

## **Unsolicited Proposals**

The submittal period for unsolicited grants is from August 1 through October 1 of each year. Ten (10) copies of each proposal must be mailed or submitted in person to the following address before midnight on the closing date of the grant submittal period:

Alternative Renewable Energy Sources Program  
Department of Natural Resources and Conservation  
32 South Ewing  
Helena, Montana 59601

Any proposals received after the deadline will not be considered unless it is apparent that unusual and unforeseen conditions prevented the application from being filed on time.

If the applicant wishes to make major revisions in a proposal after it is submitted, the Department may require a new application. It must then be resubmitted during the next grant submittal period. Minor revisions which update or improve the quality of a proposal without changing its scope will be accepted and reviewed by the Department.

## **Solicited Proposals**

The Department may, from time to time, solicit specific proposals in order to initiate projects which are needed to meet program goals and objectives. Those who can satisfy the Department's requirements may compete independently for an award by submitting their bids in response to the objective stated in the solicitation. The Department will solicit proposals for funding using the following two methods:

**a) Request for Proposal (RFP).** The RFP will describe the objective(s) of the project, the maximum funding available, and the deadline for submittal. The RFP will be publicly advertised and/or sent to selected groups or individuals that the Department deems to have the necessary credentials and experience to successfully

carry out the project. The proposals will be evaluated, and based on the results of the evaluation process, a grant award and contract may be offered to the successful applicant. The Department reserves the right to accept or reject any or all proposals received.

**b) Single-Source Proposal.** The Department may issue a single-source proposal and negotiate a contract directly with an individual or group to accomplish a specific objective for a specified grant amount.

# **THE PROPOSAL DOCUMENT**

## **General Information**

The Department does not require that a specific form be completed by the applicant for grant awards. Both solicited and unsolicited grant proposals prepared by the applicant should contain complete and accurate technical, business, and budget information to permit full evaluation and competitive selection without the need to obtain supplemental information. Unnecessarily elaborate presentations are not desirable. Clear, concise proposals not only speed the review process, but assure the applicant that all the merits of a proposal can be reviewed.

The Department may request that proposals be clarified and supplemented by additional information; it is not obligated to accept or consider incomplete proposals. The Department reserves the right to support or reject any proposal in whole or in part. Consequently, commitment to (or installation of) a particular system prior to receiving funding support through the program is done at the applicant's risk.

To aid the proposal review process and provide all applicants an equal basis for being considered, the following format is recommended. All applicants, whether submitting a solicited or unsolicited proposal, should address each of the items listed in the content section.

## **Format**

The grant application should be typed, printed, or otherwise legibly reproduced on 8½" × 11" paper. Typed materials should have a 1" margin on all sides and pages should be numbered consecutively.

Maps, drawings, sketches, or charts accompanying an application should be identified as "Exhibit \_\_\_\_." Such exhibits are to be cut, folded, or reduced to 8½" x 11" size.

Each copy of a proposal should be securely bound. Stapling each proposal in the upper left-hand corner is the preferred method; plastic slip-on binders are not acceptable.

# **Content**

## **1. Title Page**

This should include sufficient information to quickly determine the scope of the project and the name(s) of the applicant(s). A sample title page is provided in appendix A. The following information is required:

- \* Applicant's name, address, and telephone number.
- \* Name, address, and telephone number of others who may be contacted concerning the project if the primary applicant is not available.
- \* Location or address of the project (e.g., 6 miles west of Circle on Highway 200 and 8 miles north), and name of the land-owner involved if other than applicant.
- \* Funding request; the dollar figure expected from the Department in support of the project.
- \* Project scope: a very brief description (less than 100 words) stating the type of project and renewable energy source being considered (e.g., small hydropower generator, passive solar greenhouse, alcohol from wood waste) including a statement of the purpose of the project (e.g., research, development, construction of prototype, public information and education). Major components should be mentioned and can be detailed in the body of the application.
- \* A statement of public information acknowledgement, agreeing that all material submitted by the applicant to the Department is subject to public scrutiny.

## **2. Project Abstract**

The abstract should consist of a concise statement (one page or less) which summarizes the objectives, general nature, and plan for undertaking the project. In the case of an RFP, this will be a synopsis of how the applicant will meet the goals and objectives outlined in the solicitation announcement.

## **3. Table of Contents**

## **4. Background Information**

This section should briefly discuss how the proposed project relates to (or builds upon) the activity of others. Indicate the physical laws or theories which relate to the project and how the proposed work may extend the knowledge in the field. Point out problems the proposed project may assist in solving, as well as its role in meeting future energy needs. This discussion should not exceed three pages.

## **5. Technical Description**

In most cases, this section will be the essence of the report. It should contain a complete and accurate description of the project.

Those projects using mechanical devices should include physical dimensions, control mechanisms, major equipment, backup system, and any existing equipment that will be used (a system schematic is desirable; see appendix B for an example). Research and informational projects should include a detailed discussion of how the project will be carried out, theories, laws or codes that may apply and any technical data deemed appropriate for clarification.

An effort should be made to limit this section to a maximum of 20 pages. Supplementary tables, charts, maps, etc., should be put in the Exhibit section with references made to them from the body of the report. A description of all purchased equipment should include the manufacturer, model, size, rated output, and warranty information.

## **6. Monitoring**

The applicant should describe any monitoring equipment, (i.e., minimum - maximum thermometers, kilowatt hour meters, insolation recorders, water flow meters), which will be used to obtain preliminary data on the functions of a system or device. The Department will perform any extensive monitoring deemed necessary.

## **7. Energy Analysis**

Where applicable the net energy yield of a proposed system must be stated and coupled to a proven energy requirement, (such as last year's largest heating bills) in order to justify the output sizing for a proposed system. It should be noted that the Department will question whether all the anticipated output will be used or whether a portion of the project has been deliberately over or undersized. The expected performance should be noted as well as the energy efficiency of any structure involved (e.g., the heat retention characteristics of the structure).

## **8. Project Suitability**

The suitability of the proposed site for the renewable resource being used should be assessed and, whenever possible, the resource availability measured. For example, is the windmill being installed at the windiest possible site? What is the measured wind energy potential? Is the solar panel going to be shaded by trees or mountains a portion of the time? What is the solar insolation at the site? Is wood readily available for a furnace? In addition, pollutants or contaminants produced and safety considerations must also be addressed.

## **9. Economic Analysis**

This section should discuss the economic feasibility of the proposed project. Included where applicable are such items as initial cost, volunteer labor and material cost, expected payback time (i.e., simple payback period is total system cost divided by the energy costs savings per year). A discussion of the possible effects of inflation rates for conventional fuel sources on the payback period should be included.

## **10. Business Arrangements**

This section should include a work schedule and identify partnerships or corporations, contractor(s), or sub-contractor(s), and key personnel involved in the proposed project. Brief resumes or descriptions of experience/work related background should be presented for all key personnel (preferably as an exhibit) outlining the capability for doing the proposed work.

## **11. Work Schedule**

The work schedule should present deadlines for each major step or each completed phase of the project. Ideally, the schedule should show gradual progress on at least a month-to-month basis. However, if lessened project activity is anticipated during certain periods of the year, it should be noted on the work schedule. Time allotments should be generous for portions of the work not under the direct control of an applicant (e.g., subcontracted work or delivery of equipment).

## **12. Budget**

These grants are for promoting alternative renewable energy. Any money requested through this program should apply only to that portion of the project which deals with a renewable energy source. The Department reserves the right to fund portions of a proposed project. Once a budget is accepted and a contract negotiated, only limited shifts (up to 25 percent) from one budget category to another are allowed.

Allowable expenditures must be verified before they are paid to grantees. In certain instances, funding advances may be allowed if they are fully explained and approved by the Department. The grantee must agree to submit to a state accounting audit in order to verify expenditure of the grant funds.

The budget should contain actual costs if they are available, or estimates if they are not. Cost should be based on prices expected at the time of purchase. The number and total cost of all items for the project should be listed. If funds are available for the project

from other sources, they should be listed in a separate column. The amount of funding requested from the Department should be clearly noted for each item and the following budget categories must be used (see appendix C for an example budget):

a. Salaries and Benefits

(1) All salaries should be included as a part of the budget in the following forms: salaries, hourly wages and benefits. Favorable consideration is given to those projects for which the applicant is willing to contribute the personal labor cost. If the applicant seeks funds for personal labor and will be retaining final ownership of the project (such as residential application), grant monies up to \$3 per hour may be used for nominal reimbursement of such costs. The remainder of the wage is to be obtained from other sources or considered to be donated.

b. Operation Expenses

(1) Contracted Services. Consultant and professional assistance, data processing, printing, film developing, equipment use, and laboratory testing are examples.

(2) Supplies and Materials. Consumable commodities purchased for inventory or immediate use such as minor tools and instruments, film, piping, and building materials should be listed here. These are generally single items costing less than \$100.

(3) Communications. This category includes the cost of transmitting messages and involves such items as telephone, postage and mailing and data transmission lines.

(4) Travel. This category includes the cost of transportation, such as airplanes, railroads, buses and taxicabs. Meals, lodging and mileage allowances are included when privately owned vehicles are used.

(5) Rent. This category includes the charges paid for the use of equipment or facilities.

c. Equipment

(1) This category includes purchase of new and replacement equipment which is of a nonconsumable nature, has an estimated life of more than one year and a cost equal to or greater than \$100. Certain items under \$100 such as cameras, tape recorders and calculators may be classified as equipment. Commercial solar collectors, rock storage tanks, wind generators and heat pumps are other examples.

d. Administration

(1) This category is for expenses considered to be indirect costs of the project. Rent of office space, utilities, secretarial time and staff support services are examples. The method used by the applicant to determine these costs must be stated in the proposal.

**13. Exhibits**

This final section may include as many subdivisions as necessary to present additional supportive information. It should contain charts, graphs, tables, maps, and sketches (preferably a 8½" x 11" paper), and other visual aids. All tables should be clearly labeled. Graphs should have both scales and axes labeled, and their purpose made clear by a title or statement. Reference to this additional information should be made from the body of the report.

## **PROPOSAL EVALUATION**

If the foregoing information has been provided and it is determined that all rules and regulations have been complied with, the application goes through a review process. The maximum value of a project to the general public and development of alternative renewable energy in Montana for the least expense is considered. Preference will be given to development and demonstration of individual inventiveness, and to projects which obtain matching funds from federal or other sources. New or innovative ideas are sought and demonstrations of systems not already established in Montana are also considered. The public visibility or interest created by a project is an important consideration.

The review is made by the program staff, the Alternative Energy Advisory Council and the Department Director. The staff reviews each proposal for its technical merits and feasibility and may request an assessment by specialized consultants when needed. The Council, a group of Montana citizens representing different professions, acts as an advisory committee and assists in deciding which proposal offers the greatest benefit to the state. Although it does not review each Request for Proposal or single-source agreement, the Council does not provide recommendations on program direction. The Department Director reviews each project and holds the final decision-making authority on all grants.

The total amount of funding for each grant is determined by the Director of the Department. The Department is not obligated to pay any costs incurred in the preparation and submission of proposals.

## **SUCCESSFUL APPLICANT'S RESPONSIBILITY**

The Department will assume no responsibility for the design of a system or demonstration model, its operability, or the direct or indirect consequences of failure of a project. Accordingly, the successful applicant and/or contractor must agree to indemnify the state against any and all liability for claims arising from the project. If a development project results in the successful manufacturing and/or marketing of a renewable energy system or device, the applicant may be required to repay the Department all or part of the funds granted.

### **Quarterly and Final Reports**

Each grantee is required to submit progress reports every quarter. The quarterly reports need not be formal, but should provide the program staff with a clear idea of the progress being made and whether any changes in the initial work schedule are anticipated. A comprehensive final report must be filed when the project is completed; five copies are required. This report should contain an in-depth explanation of what was accomplished, discuss how well the original proposal was carried out, point out what improvements were made, and explain what conclusions can be drawn.

### **Public Information and Access**

All information resulting from a funded project will be made available to the public and the initial application must acknowledge this fact. At the time the final report is accepted, arrangements will be made to allow public access to the project without inconvenience to the grantee. Access may be required for up to five years on working demonstration systems, during which time the applicant will be required to provide project upkeep and cooperate with any monitoring efforts.

## **Patent Rights**

In the event that an invention, improvement, or discovery (whether patentable or not) is made during the course of the project, the successful applicant must notify the Department. The Department retains the right to determine whether a patent application shall be filed, and to control the disposition of all rights under any resulting patent. If the Department obtains the patent rights, the successful applicant may be offered license rights. These rights will include provisions for payback of the grant to the Department (under terms established by the Department) as well as provisions for marketing in Montana.



# **APPENDIX A**

## **Sample Title Page**

### **Grant Proposal Submitted to the Montana Department of Natural Resources and Conservation Alternative Renewable Energy Sources Program**

#### **Wind Demonstration Project For Farm Electrical Use**

##### **Applicant**

Elmer Granger  
P.O. Box 621  
Wibaux, Montana 59353  
Phone: 795-1007

##### **Project Consultant**

Acme Wind Site Evaluation Service  
346 Coyote Estates, Suite 3  
Alzada, Montana 59311  
Phone: 828-9876

##### **Project Location**

Ten miles east of Wibaux

##### **Funding Request**

\$5,728.50

##### **Project Scope**

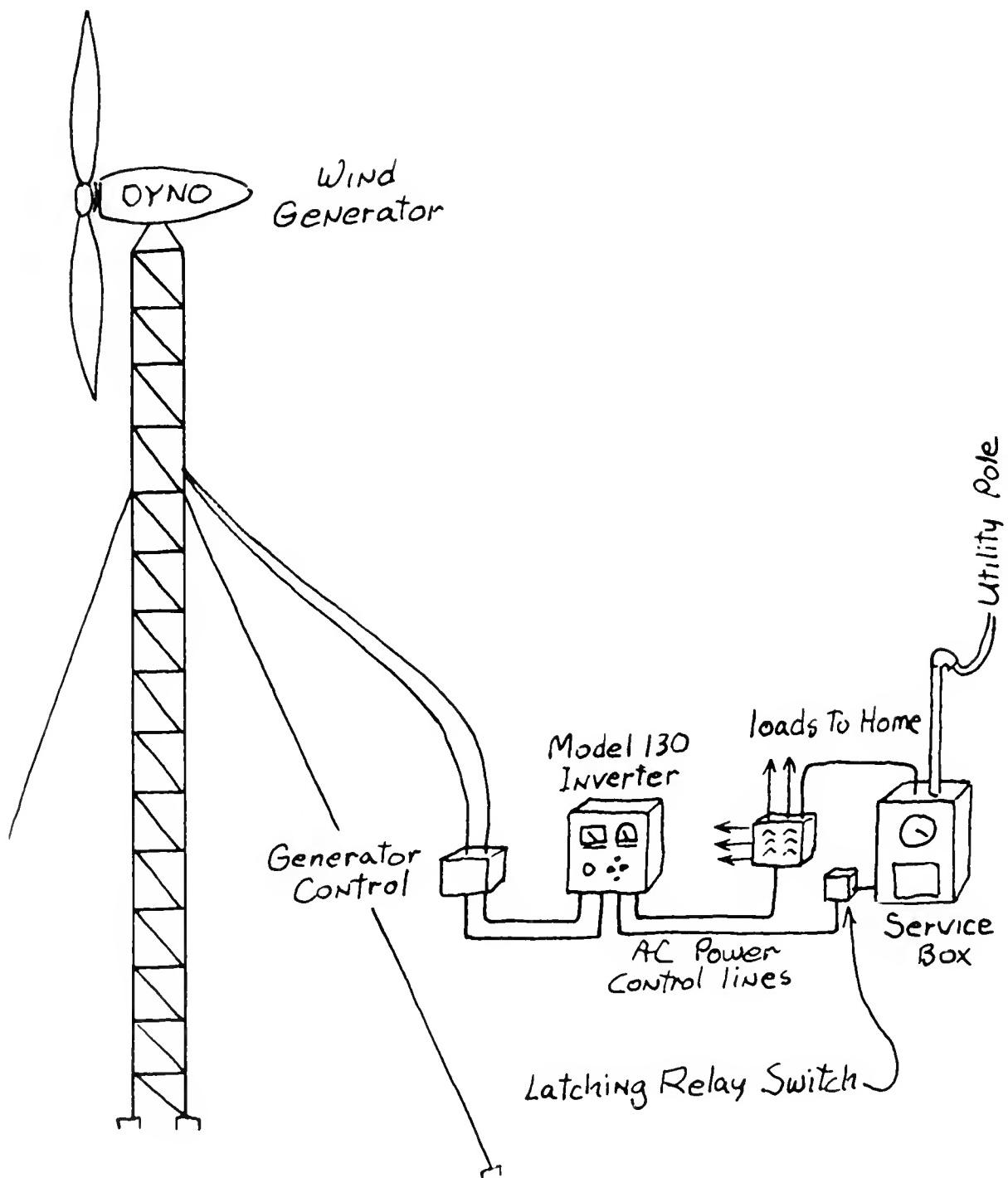
A 1,500 watt wind generator will be mounted on top of a 90-foot tower. The generator will supply about 50 percent of the electrical needs of the home. The D.C. current from the generator will pass through an inverter which will convert it into 120 volt, 60 cycle A.C. current. A switching mechanism will allow power to be drawn from the public utility when the wind generator is not producing enough power.

##### **Public Information Acknowledgement**

It is agreed that all information contained in this application is public, and the applicant hereby waives any claim to confidentiality. In the event this proposal is funded, it is agreed that all resulting information can be made available to the public.

## APPENDIX B

### Example Project Schematic



## APPENDIX C

### Example Budget

	Grant Request	Other *	Total
<b>I. SALARIES</b>			
A. Elmer Granger (100 hrs. @ \$3.00)	\$ 150.00	\$ 150.00	\$ 300.00
B. Benefits @ 13 percent	19.50	19.50	39.00
<b>II. OPERATING EXPENSES</b>			
A. Contracted Services			
Acme Wind Site Evaluation Service (6 mos. of wind anemometer readings were recorded last year)	---	222.19	222.19
B. Supplies and Materials			
1. 6 cubic yards concrete @ \$50/yd. <sup>3</sup>	300.00	--	300.00
2. 540 feet of 1/4" cable @ \$.30/foot	162.00	--	162.00
3. anchor bolts, cable clamps, and misc. hardware	125.00	--	125.00
4. electrical wire, connectors, disconnect switches, tape and misc.	60.00	120.00	180.00
C. Communications			
telephone	20.00	--	20.00
report prep. & postage	25.00	--	25.00
D. Travel			
3 trips from the farm to town (20 miles/trip) to pick up equipment @ \$.15/mile	9.00	--	9.00
E. Rent	---	--	--
<b>III. EQUIPMENT</b>			
Dynotech 1500 watt wind generator and controls	1,999.00	--	1,990.00
90-foot guyed galvanized steel tower, top adaptor, foundation bolts, removable gin pole, and lightning protection kit	1,430.00	--	1,430.00
Rexon Model 130 Inverter (3 kw max capacity)	1,429.00	--	1,429.00
<b>IV. ADMINISTRATION</b>	---	--	--
<b>TOTALS</b>	<hr/> \$5,728.50	<hr/> \$ 511.69	<hr/> \$6,240.19

Total grant funds requested:     \$5,728.50

---

\* These are the expenses which will be reimbursed by a funding source other than the Renewable Energy Program (e.g., the applicant's contribution to the proposed project.)

## **APPENDIX D**

### **Statutes Providing for Alternative Renewable Energy Sources Program**

**90-4-101. Purpose.** The purposes of this part are to stimulate research, development, and demonstration of energy sources which are harmonious with ecological stability by virtue of being renewable, thereby to lessen that reliance on nonrenewable energy sources which conflicts with the goal of long-range ecological stability and to provide for the funding and administration of such research.

**90-4-102. Definitions.** As used in this part, the following definitions apply:

(1) "Alternative renewable energy source" means a form of energy or matter, such as solar energy, wind energy, or methane from solid waste, capable of being converted into forms of energy useful to mankind, and the technology necessary to make this conversion, when the source is not exhaustible in terms of this planet and when the source or the technology are not in general commercial use.

(2) "Person" means natural person, corporation, partnership, or other business entity, association, trust, foundation, any educational or scientific institution, or any governmental unit.

(3) "Department" means the Montana department of natural resources and conservation.

**90-4-103. Alternative energy research development and demonstration account established.** There is within the earmarked revenue fund an alternative energy research development and demonstration account. Moneys are paid into this account under 15-35-108. The state treasurer shall draw warrants payable from this account upon order of the department.

**90-4-104. General powers of department.** The department may:

- (1) employ a staff adequate to administer this part;
- (2) retain professional consultants and advisors;
- (3) adopt rules governing applications and granting of funds;

(4) consider applications for grants and award grants, subject to the availability of funds and to the appropriation of such funds by the legislature from the alternative energy research development and demonstration funds for projects that will further the purposes of this part;

(5) appoint an alternative energy advisory committee composed of representatives of state agencies and citizen members with expertise in alternative energy matters. The appointment of any such advisory committee shall be in keeping with 2-15-122.

**90-4-105. Applications for grants.** Any person may apply for a grant to enable him to research, develop, or demonstrate alternative renewable energy sources. The department shall prescribe the form for applications. Applicants shall describe the nature of their proposed investigations, including practical applications of the possible results and time requirements.

**90-4-106. Criteria for grant awards.** The department may award grants to applicants under 90-4-105 in accordance with the following criteria:

(1) A grant may cover a period not exceeding 1 year, and the department may not commit itself to spending funds anticipated to be available more than 1 year after the grant period begins. The department may give an applicant a statement of intent to renew its support of his work, subject to the availability of funds and such other conditions as the department may express.

(2) The department may give preference to projects which are also supported by grants from the federal government or other persons provided the grants are consistent with the other objectives of the department. The purpose of this preference is to use the alternative energy research development and demonstration account for matching moneys in order to support more substantial research.

(3) The department may give preference to research centers unattached to existing educational institutions where several investigators can share supporting services. However, this shall not be interpreted to prohibit the department from awarding grants to existing educational institutions.

(4) The department may give preference to research centers which make information available to individuals, small businesses, and small communities seeking the use of renewable energy sources in their homes, plants, places of business, and small communities.

(5) All information resulting from such research shall be made available to the public and shall not become the private property of or under the exclusive control of any one company or person.

(6) The department is under no requirement to expend or commit available alternative energy research, development, and demonstration funds when in its judgment such expenditures or commitments would be unproductive.

**90-40-107. Biennial report.** The department shall report its expenditures and other activities under this part to the legislature at the beginning of each regular legislative session.

**15-35-108. Disposal of severance taxes.** Severance taxes collected under the provisions of this chapter are allocated as follows:

(1) To the trust fund created by Article IX, section 5, of the Montana constitution, 25% of total collections a year. After December 31, 1979, 50% of coal severance tax collections are allocated to this trust fund. The trust fund moneys shall be deposited in the fund established under 17-6-203(5) and invested by the board of investments as provided by law.

(2) Coal severance tax collections remaining after allocation to the trust fund under subsection (1) are allocated in the following percentages of the remaining balance:

(b) 2½% until December 31, 1979, and thereafter 5% of the earmarked revenue fund to the credit of the alternative energy research development and demonstration account;



300 copies of this public document were published at an estimated cost of \$1.05 per copy, for a total cost of \$376.50, which includes \$315.00 for printing and \$61.50 for distribution.

3  
Printed by  
COLOR WORLD OF MONTANA, INC.  
201 E. Mendenhall, Bozeman, MT 59715

**MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION**  
**DNRC**  
SEPTEMBER 1979  
ENERGY DIVISION